



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,898	02/27/2002	Robert E. Low	INE 111	7501

7590 08/02/2005

Andrew G. Kolomayets
Cook, Alex, McFarron, Manzo,
Cummings & Mehler, Ltd.
200 West Adams Street - #2850
Chicago, IL 60606

EXAMINER

MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
----------	--------------

1764

DATE MAILED: 08/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/083,898	Applicant(s) LOW ET AL.	
	Examiner Virginia Manoharan	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-75 is/are pending in the application.
- 4a) Of the above claim(s) 55-57 and 72-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-54 and 58-71 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election without traverse of Group I, claims 40-54 and 58-71 in the reply filed on April 25, 2005 is acknowledged.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

The drawings are objected to as failing to comply with 37 CFR 1.84 (p) for the following reasons:

(1). The reference character "13" has been used to designate both as "compressor 13" in line 5, page 3, and as "condenser 13" in line 2 of page 4.

(2). The reference numerals "13" and "14" both are designated as condenser. See page 3, lines 5 and page 12, last line respectively.

Corrected drawing sheets in compliance with 37 CFR 1.121 (d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either 'Replacement sheet' or 'New Sheet' pursuant to 37 CFR 1.121 (d). If the change are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next office action. The objection to the drawings will not be held in abeyance.

The specification had not been checked to the extent necessary to determine the presence of all possible minor errors e.g., typographical. Grammar, idiomatic, syntax and etc. Applicants' cooperations are requested in correcting any errors of which applicants may become aware in the specification.

Claims 40-54 & 58-71 are objected to because of the following informalities:

(a) The phrase "one or more" should be -at least one- to avoid the alternative "or". See e.g., claims 40, 44 & 65.

(b) The term "vapour", numerous recited in the claims, should be -vapor - as the latter is the term normally used in the U.S.

(c). The values" in claim 71 is misspelled.

(d). The claimed "the said" in claims 48 & 68 is redundant.

Claims 40-54 and 58-71 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a). The claims or at least part of the claims do not recite positive structural element of an apparatus.

For examples Only: "...having secured therein one or more cooling members..."; "...supplied to the hollow interior from an extractor of a biomass.." and etc. recited in claim 40. [The cooling members ,extractor and extraction circuit, for examples, should be positively recited as structures. See also "resistance to flow" in claims 43 & 63. [It is noteworthy that a - means for- language is authorized by 35 USC 6th paragraph].

(b). The Apparatus” in the preambles of claims 42-54 are inconsistent with the “A condenser” in the preambles of claims 40-41, the claim from which they respectively depend directly and/or indirectly.

(c). It is unclear where the vapor supplied to the condenser is generated, i.e., whether from an extractor of a biomass extraction circuit as recited in claim 40, or from an evaporator as would be presupposed from claim 54?

(d). The “fluid” in claim 71 is broadening the “liquid” in claim 58.[A fluid could either be a liquid or a gas].

(e). Claim 58, as recited, provides for ambiguity and confusion. That is, the reservoir in “ condenser – reservoir assembly” different or the same from the “liquid reservoir”?

(f). Claims 40-54 are incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the connection of the outlet from the assembly to the rest of the other elements in the apparatus.

(g). The claimed “the level of condensed solvent in the reservoir” ‘lacks antecedent support.{The condensed solvent was not initially recited being in the reservoir].

(h) The claimed “ level of condensed solvent... relative to the heat exchanger ...” is not understood.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1764

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 40 –54 & 58-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 032 7480 or McQuade in view of Hay (3,563,305) or Wolfseder (4,522,256) .

EP '480 discloses an apparatus which is comprised of a condenser comprising a substantially closed vessel having a hollow interior including an upper portion and a lower portion, the hollow interior having secured therein one or more cooling members for condensing solvent, the lower portion of the hollow interior being a reservoir, for condensing, and the reservoir including a liquid offtake for condensed solvent as claimed in claim 40. EP'480 further discloses a condenser- reservoir assembly for a closed loop biomass extraction circuit, the assembly comprising, operatively connected in series, an inlet to a heat exchanger, for solvent vapour; a heat exchanger; an outlet from the heat exchanger, for liquid solvent; a liquid reservoir connected to the outlet; and an outlet from the assembly as claimed in claims 58. The apparatus of EP'480 differs from the claimed invention in that claim 58 recites an "...adjuster for controlling the level of condensed solvent in the reservoir relative to the heat exchanger...". See also claim 40. However, to provide the reservoir with a level adjuster (e.g. an electronic control system comprising a level sensor and a control valve) would have been obvious to one of ordinary skill in the art inasmuch as said adjuster are known in the art as taught by Hay or Wolfseder. See e.g., the abstract & claims at cols. 5-6 of McQuade et al .

Art Unit: 1764

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

(a). Mar discloses an extractor —evaporator - condenser circuit.

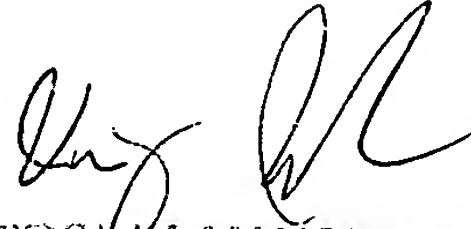
(b). Coker discloses a control system in a distillation column.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Virginia Manoharan whose telephone number is 571-271-1450. The examiner can normally be reached on Tuesday-Friday from 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

V. Manoharan/af
July 29, 2005


VIRGINIA MANOHARAN
PRIMARY EXAMINER
ART UNIT 132 / 764